



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,260	12/12/2005	Seiichi Toki	3240-7449US	1642
24247	7590	12/12/2007		
TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110			EXAMINER ZHENG, LI	
			ART UNIT 1638	PAPER NUMBER
			NOTIFICATION DATE 12/12/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTOMail@traskbritt.com

Office Action Summary

Application No.

10/549,260

Applicant(s)

TOKI ET AL.

Examiner

Li Zheng

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,5,6,9,10 and 12 is/are pending in the application.
- 4a) Of the above claim(s) 2,5,6,9,10 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/17/2007.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 17, 2007 has been entered.

2. Claims 2-3, 5-6, 9-10 and 12 are pending.

Claims 2, 5-6, 9-10 and 12 are withdrawn for being drawn to non-elected subject matter. Particularly, new claim 12 belongs to invention Group II set forth in restriction requirement filed 6/23/2006.

Claim 3 is examined on the merits.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The last step of the method in the instant claim is inconsistent with the preamble. The last step only results in transient expression of the transposase in plant, whereas the preamble states that the method is for transposing a transposon that do not have a transposase.

Claim Rejections - 35 USC § 103

5. Claim 3 is rejected under 35 U.S.C. 103(c) as being anticipated by Weld et al. (2002, *Plant Cell, Tissue and Organ Culture* 69:45-54) in view of Clough et al. (1998, *The Plant Journal* 16:735-743).

Claim 3 is drawn to a method for transposing a transposon that do not have a transposase comprising introducing a transposase gene into a transformed plant having the transposon lacking transposase by in planta transformation of *Agrobacterium* and transiently expressing the transposase.

Weld et al. teach a T-DNA construct carrying the Ac transposase gene was transferred to *Hieracium aurantiacum* (A3 3621) leaf discs (previously transformed with

Art Unit: 1638

a Ds element, which is a transposon lacking of transposase) by co-cultivation with *Agrobacterium tumefaciens* (page 50, the paragraph bridging the left column and the right column). Seven out of 84 of spectinomycin resistant plants regenerated under selection for Ds excision did not retain Ac transposase (the paragraph bridging pages 50-51). Six of the seven plants had the predicted 5kb fragment due to the transposition. As the Ac transpose gene was not detected in these six plants, and Ds excision depends on transposase activity, the transposase source was most likely lost from these plant after transient transposase expression (page 51, 2nd paragraph of the left column).

Weld et al. do not teach in planta transformation of *Agrobacterium*.

Clough et al. teach a simplified method for *Agrobacterium*-mediated in planta transformation of *Arabidopsis* named as the floral dip method (at least abstract; also page 741, 2nd paragraph of left column). Clough et al. also teach that the floral dip method required considerably less time and effort (page 737, last paragraph of right column).

Given the recognition of those of ordinary skill in the art of the value of a method for excising a transposase-free transposon by transient expression of the transposase as taught by Weld et al., it would have been obvious for a person with ordinary skill in the art to use the floral dip method as taught by Clough et al. to introduce the T-DNA construct carrying the Ac transposase gene into *Hieracium aurantiacum* which is previously transformed with a transposase-free transposon, resulting in the instant invention. One skilled in the art would have been motivated to do so given the

Art Unit: 1638

teaching of Clough et al. that the floral dip method required considerably less time and effort (page 737, last paragraph of right column).

Thus the claimed invention would have been *prima facie* obvious as a whole to one of ordinary skill in the art at the time it was made, especially in the absence of evidence to the contrary.

Summary

No claim is allowed.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li Zheng whose telephone number is 571-272-8031.

The examiner can normally be reached on Monday through Friday 9:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1638

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ASHWIN D. MEHTA, PH.D.
PRIMARY EXAMINER